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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,550	01/24/2001	Hiroyuki Akimoto	01038/LH	5150
1933	7590	07/21/2005	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 5TH AVE FL 16 NEW YORK, NY 10001-7708			QIN, YIXING	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,550

Applicant(s)

AKIMOTO, HIROYUKI

Examiner

Yixing Qin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

In response to applicant's amendment received 4/29/05, all requested changes have been entered.

Response to Arguments

In response to the arguments made, the Examiner does agree that Yokoi does not explicitly show only three connection points. However, the statement towards such fact in the previous Office Action was to point out that it was not explicitly stated to have three connection points, making it obvious to have three connection points if four were shown in Yokoi. In any case, a new reference, Komori et al (U.S. Patent No. 5,247,316) has been found to teach the use of only three connection points. The Examiner would like to further point out that Yokoi is still being used to disclose the various other limitations of the claims, and would be obvious to simply have a different design structure (such as the one of Komori et al) to hold the various components as disclosed in Yokoi.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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I. Claim 1-3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoi (U.S. Patent No. 4,723,857 in view of the applicant's admitted prior art and further in view of Komori et al (U.S. Patent No. 5,247,316).

1. Claim 1

Regarding claim 1, Yokoi discloses :

- in column 3, lines 61-63, that "(m)ounted on the subframe 20 are the platen 11, a ribbon cassette 23, and a carriage 24, which carries thereon a print head 25 adapted for dot matrix printing.
- Yokoi does not disclose the exact image production items (image holding body, image formation means, and paper conveyor) as mentioned in claim 1, Yokoi is simply mentioning a different type of printer (dot matrix than that being claimed). According to the applicant's description of the related art, on pages 2 lines 10-27 and page 3 lines 1-14, the application discloses that a conventional printer (well known in the art) contains:
 - "a paper feeding roller" (**paper conveying means**) (page 2, line 10)
 - "a fixation unit" (**image formation means**) (page 2, line 15)
 - "a print head 26 selectively exposes the circumferential surface of a photosensitive drum 23... (to form) an electrostatic latent image... on the photosensitive drum..." (**image holding body, writing means**) (page 2 lines 23-27, page 3 lines 1-2)
- Therefore, it is clear to one of ordinary skill in the art that the platen, cassette, carriage, and print head that Yokoi discloses are for image production.
- The subframe holds the platen, ribbon cassette, carriage and print head (i.e. the subframe supports "image holding body" and "writing means"),
- in Fig. 5 a main frame (item 10) and a subframe (item 20). The main frame can be read as a "**lower frame**" and item 20 is the "**subframe**". This shows a **framework including a plurality of connecting framing members** and one can see in Fig. 5 of Yokoi that **subframe parts (item 20) rests on the main frame (item 10).**
- Yokoi discloses in column 5, lines 60-64, that "...the subframe 20 is mounted on the main frame... (and enjoys) a stable mounting state." (i.e. "**unlikely to be twisted as a result of unstable arrangement of the lower frame.**")
- As mentioned above, Yokoi does not explicitly disclose the use of only three connection points. Komori, however, discloses in the abstract that in their invention, "[t]he frame (reads on **subframe** as being claimed) is mounted on a printer base (read on **lower frame**), the frame being supported on the base at

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three points wherein one of the three points is located adjacent the deflector and the other two points are disposed adjacent the positioning portion of the photosensitive member." Please also see Fig. 6 of Komori and column 9, lines 65-68.

- All three references are in the art of printers and discloses various information in regards to the components and framework of a printer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a printer frame design with three connecting points like the printer as disclosed by Kimori. The motivation would be to have a stable frame structure.

2. Claim 2

Yokoi discloses

- "rectangular shaped" frames. In Fig. 1 and column 3, lines 40-45, Yokoi teaches that "(a) casing... along with the main frame 10 and the covers 12, 13, and 14, define a roundcornered, rectangular outline of the printer." One can see from Fig. 1 of Yokoi that the main frame 10, is "**approximately in a rectangular shape.**" In Fig. 4, the subframe can be seen as the large portion on the bottom of the drawing made of the bottom plate 50 with vertical walls (Yokoi, column 6, lines 34-36). From the picture, the subframe looks to be "**rectangular**" as well. One can also see that the frame in Fig. 6 of Kimori is also rectangular.
- In Fig. 6 of Kimori, one can see items R1, R2 and R3 as connection points. R2 and R3 are on a side opposite R1.

3. Claim 3

Yokoi discloses :

- in Fig. 4 and column 6, lines 31-33 that the subframe supports various print components. Some of the components that the subframe supports are the rollers (i.e. "**paper conveying means**") (Yokoi, column 6, line 66).

4. Claim 5

Yokoi discloses :

- in Fig. 4 and column 6, lines 31-33 that the subframe supports various print components. Some of the components that the subframe supports are the rollers (i.e. "**paper conveying means**") (Yokoi, column 6, line 66).

II. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoi (U.S. Patent No. 4,723,857) and in view of the applicant's admitted prior art in view of Komori et al (U.S. Patent No. 5,247,316) and further in view of Maruyama et al (U.S. Patent No. 5,870,659)

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5. Claim 4

The Yokoi reference and the applicant discloses:

- on page 2, lines 8-27 and page 3, lines 1-13, all of the components mentioned in the claim (see claim 1) are part of a "printer device 1" (Yokoi, page 2, lines 8-9). Furthermore, on page 3, lines 9-13, Yokoi discloses that "(t)he photosensitive drum 23, the charger, the developing unit 27, the transfer unit, a cleaner, etc. (are) included in the image formation section..."
- However, the Yokoi and applicant's disclosure of the related art fails to explicitly disclose "**an image formation unit.**" Since all of these components are part of the image formation process and it would have been obvious to one of ordinary skill in the art at the time of the invention to simply put these components together as a "image formation unit." The motivation is to better organize components for efficient printing.

The Yokoi reference and the applicant also fail to disclose:

- that the printer device is of a "tandem -type."
- However, Maruyama et al disclose in column 1, lines 32-33, the idea of a "... **tandem type** image forming apparatus." Further on, in column 1, lines 47-60, Maruyama et al gives an example of such a printer that includes "charging devices", "exposure devices" "developing devices" (writing and image formation means) and a "cleaner" disposed around the various photosensitive member (image holding device). Maruyama et al also discloses "... a belt like transfer member 5 (paper conveyor)..."
- Although Maruyama et al does not necessarily call these components an "unit," it is clear from the description and the drawings that they are used together to form an image.
- All the references are related in that they are about the design of an image forming apparatus. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to put the design of a tandem type printer as disclosed by Maruyama et al into the frame design as mentioned in the Yokoi reference. The motivation is to be able to use one frame design for various printer types.

6. Claim 6

The Yokoi reference and the applicant discloses:

- on page 2, lines 8-27 and page 3, lines 1-13, all of the components mentioned in the claim (see claim 1) are part of a "printer device 1" (Yokoi, page 2, lines 8-9). Furthermore, on page 3, lines 9-13, Yokoi discloses that "(t)he photosensitive

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drum 23, the charger, the developing unit 27, the transfer unit, a cleaner, etc. (are) included in the image formation section..."

- However, the Yokoi and applicant's disclosure of the related art fails to explicitly disclose "**an image formation unit.**" Since all of these components are part of the image formation process and it would have been obvious to one of ordinary skill in the art at the time of the invention to simply put these components together as a "image formation unit." The motivation is to better organize components for efficient printing.

The Yokoi reference and the applicant also fail to disclose:

- that the printer device is of a "tandem -type."
- However, Maruyama et al disclose in column 1, lines 32-33, the idea of a "... **tandem type** image forming apparatus." Further on, in column 1, lines 47-60, Maruyama et al gives an example of such a printer that includes "charging devices", "exposure devices" "developing devices" (writing and image formation means) and a "cleaner" disposed around the various photosensitive member (image holding device). Maruyama et al also discloses "...a belt like transfer member 5 (paper conveyor)..."
- Although Maruyama et al does not necessarily call these components an "unit," it is clear from the description and the drawings that they are used together to form an image.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381.


The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YQ


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